

542, 113

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
29 July 2004 (29.07.2004)

PCT

(10) International Publication Number  
**WO 2004/062350 A2**

- (51) International Patent Classification<sup>7</sup>: **A01H**
- (21) International Application Number: **PCT/CA2004/000006**
- (22) International Filing Date: 13 January 2004 (13.01.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
2,414,487 13 January 2003 (13.01.2003) CA
- (74) Agent: **ROBIC**; 55 St-Jacques, Montreal, Quebec H2Y 3X2 (CA).
- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicants (*for all designated States except US*): **FLORISYS INC.** [CA/CA]; 9354, avenue de Galinée, Montreal, Quebec H2M 2A6 (CA). **INSTITUTE FÜR PFLANZENBIOCHEMIE** [DE/DE]; Weinberg 3, 06120 Halle (Saale) (DE).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **MAUCHER, Helmut** [DE/DE]; Haferweg 10, 0116 Halle/Saale (DE). **MIERSCH, Otto** [DE/DE]; Kärntner Str. 3, 06120 Halle/Saale (DE). **WASTERACK, Claus** [DE/DE]; Tulpenstrasse 6, 06126 Halle/Saale (DE). **VARIN, Luc** [CA/CA]; 4618 rue de Lanaudiere, Montreal, Quebec H2J 3P7 (CA).
- Published:**  
— *without international search report and to be republished upon receipt of that report*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: **METHODS AND COMPOSITIONS FOR PRODUCING MALE STERILE PLANTS**

(57) Abstract: The invention relates to methods of producing male sterile plants by increasing the level of activity of the hydroxy-jasmonate sulfotransferase by genetic modification of such plant. Furthermore, the present invention provides methods to restore the fertility of the male sterile phenotype observed in such genetically modified plants by the application of a composition containing at least one jasmonate and an acceptable carrier onto the male sterile flowers.

WO 2004/062350 A2